



NORFOLK COUNTY COUNCIL

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER

FOR

1933



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PREFACE.

This Report is the 27th of the series, and the 6th for which I have been directly responsible. The arrangement of the various sections has been altered considerably, and conforms as far as possible with the requirements of the Ministry of Health Circular No. 1346; this has resulted in the omission of certain tables.

It is with regret that I have to record the resignation, in April, 1934, of Dr. Kenway T. Williams after 14 years' service with the County Council. The Council's appreciation of his work is shown by the fact that the maximum pension has been granted.

I particularly wish to draw the attention of members of the County Council to the paragraphs on Housing, on page 30, and Milk Supplies, on page 27.

Although in common with the rest of England and Wales the birth rate has again fallen and the death rate has risen—mainly owing to the preponderance of older people in the population, one is pleased to observe that the infantile mortality rate is 53·43 per 1000 live births, as compared with 64·00 for England and Wales, while deaths from puerperal sepsis and other accidents and diseases of pregnancy are 2·76 per 1000 births, as against 4·23 for England and Wales. Beyond any question of doubt these figures can be attributed to the steady influence of the public health service.

On the whole, the year under review may be considered quite a healthy one, but much still remains to be done.

This Report would be incomplete without recording my thanks to the Chairmen and members of the various Committees for their help during the year, and to the professional and clerical staffs for their loyal and hearty co-operation.

T. RUDDOCK-WEST.

Public Health Department,
29, Thorpe Road,
Norwich.

August, 1934.

PUBLIC HEALTH OFFICERS OF THE COUNTY COUNCIL.

WHOLE-TIME.

County Medical Officer :

T. RUDDOCK-WEST, M.D., B.S., D.P.H.

Deputy County Medical Officer :

KENWAY T. WILLIAMS, M.D., M.R.C.S., L.R.C.P.

Clinical Tuberculosis Officer :

W. B. CHRISTOPHERSON, M.R.C.S., L.R.C.P.

Assistant Clinical Tuberculosis Officers :

D. MORRISON SMITH, M.B., Ch.B.

E. HOLMES WATKINS, B.A., B.M., B.Ch.

Assistant Medical Officers :

O. C. DOBSON, M.D., B.S., B.Hy., D.P.H.

IRENE B. M. GREEN, M.B., B.S.

CHRISTINA LAMONT, M.B., Ch.B., D.P.H.

H. W. SEXTON, M.R.C.S., L.R.C.P.

Dental Surgeons :

A. J. CAIRNS, L.D.S.

SADIE S. HOW, L.D.S.

†M. S. LEWIN, L.D.S.

J. NIXON, L.D.S.

P. MILLICAN, L.D.S.

*A. L. WHITAKER, L.D.S.

A. A. SUMPTER, L.D.S.

†Appointed March, 1933.

*Resigned March, 1933.

Inspector of Midwives and Superintendent Health Visitor :

Miss M. A. FOWLER, M.B.E., S.R.N., Cert. C.M.B., H.V. Cert.

Assistant Inspector :

*Miss M. V. E. DAVEY, S.R.N., Cert. C.M.B.

Health Visitors :

Miss E. F. INGLE, S.R.N., Cert. C.M.B., H.V. Cert.

Miss D. PARKER, S.R.N., Cert. C.M.B.

Miss O. M. PARKER, S.R.N., Cert. C.M.B., H.V. Cert.

Miss C. MCGREGOR, S.R.N., Cert. C.M.B., H.V. Cert. (resigned April, 1933).

Miss W. A. BUXTON, S.R.N., Cert. C.M.B., H.V. Cert. (appointed May, 1933).

School Nurses :

Miss E. B. BYGRAVE, Cert. Nurse.

Miss A. HOLDEN, S.R.N.

Miss F. B. JUGGINS, S.R.N.

Miss F. M. MANN, S.R.N., Cert. C.M.B.

Miss D. PERCIVAL, S.R.N.

Miss C. SHINGLETON, S.R.N.

Miss D. VICKERS, S.R.N.

Miss L. WALKER, S.R.N.

Miss A. WELLSTED, Cert. Nurse.

Home Teachers and Visitors under the Blind Persons Act :

Miss A. E. PINNINGTON, Cert. College of Teachers of the Blind.

Miss M. D. RUSSELL, Cert. College of Teachers of the Blind.

Stanninghall Colony :

Matron: Miss OFFORD, Cert. Nurse.

Steward: W. H. G. MILES.

Clerical Staff :

Chief Clerk: C. J. HUBBARD.

Senior Clerks: G. E. MANTRIPP, A. R. PYE, H. E. WISEMAN, J. W. WOODCOCK.

Clerks: S. H. BISHOP, E. W. DURRANT, G. A. RABY, J. W. WEBB

Laboratory Assistant: W. R. EMMS.

Juniors: A. J. ALLISON, A. ARMES, R. R. BALES, *†G. W. CURTIS, I. HOOK, W. R. HOWES, H. C. WEBB, D. WEEKS, P. WEEKS.

Typists: Miss B. DAVISON (Senior), Miss P. BECKWITH, Miss E. GRAVELING, Miss M. GREEN, Miss J. HAYHURST, Miss M. HUMPHREY, Miss B. LYNES, Miss E. WOODCOCK.

*Sanitary Inspector's Certificate.

†Meat Inspector's Certificate.

PART-TIME.

Orthopædic Surgeon :

H. A. BRITTAIN, M.A., M.Ch., F.R.C.S.

Consultants under Puerperal Fever Scheme :

M. W. BULMAN, M.D. (Obstet.), M.S., F.R.C.S., M.C.O.G.
A. CROOK, M.R.C.S., L.R.C.P.
E. B. HINDE, M.B., B.Ch., F.R.C.S.E.
C. E. S. JACKSON, M.B., B.S., F.R.C.S.
C. NOON, O.B.E., F.R.C.S.

Ophthalmic Specialists :

A. GREENE, M.D., F.R.C.S.I.
G. MAXTED, M.D., F.R.C.S.
S. T. PARKER, M.B., Ch.B., F.R.C.S.
W. E. RUTLEDGE, L.R.C.S., L.R.C.P., D.O.M.S.
W. WYLLYS, M.R.C.S., L.R.C.P.

Aural Specialists :

N. S. CARRUTHERS, F.R.C.S.E. J. LEWIN, M.B., B.S., F.R.C.S.

Medical Officers Venereal Disease Clinics :

S. H. LONG, M.D. }
T. J. WRIGHT, F.R.C.S.E. } Norwich.
J. W. MCINTOSH, M.B., Ch.B., B.Sc. (P.H.), F.R.C.S.E., King's Lynn

Pathologist :

G. P. C. CLARIDGE, M.B., B.S.

Assistant Bacteriologist :

F. T. ALPE, F.C.S.

County Analyst :

W. LINCOLNE SUTTON, F.I.C.

Inspectors under Food and Drugs Acts :

W. B. BARRY.

A. ROBINSON.

(These Officers are also Inspectors of Weights and Measures).

District Medical Officers under the Poor Law Acts :

84 Medical Practitioners act as part-time Officers.

Medical Officers of Institutions : 15.

Public Vaccinators : 83.

Vaccination Officers : 28.

Milk and Dairies Acts :

17 Veterinary Surgeons act as part-time Officers.

Dental Surgeons :

22 act as part-time Officers under the Council's Schemes for Expectant and Nursing Mothers, Tuberculosis, Blind Persons, and Public Assistance.

Health Visitors :

121 District Nurses act as part-time Health Visitors.

Sanitary Districts.

<i>District.</i>	<i>Acreage.</i>	<i>Population Census, 1931.</i>	<i>Medical Officer of Health.</i>	<i>Sanitary Inspector.</i>
URBAN				
Cromer ...	1062	4176	Dr. R. C. M. Colvin-Smith	H. C. Cowen
Diss ...	3674	3421	„ H. M. Spiers	G. H. Jones
Downham				
Market ...	1003	2342	„ J. Gibb	H. J. Diver
East Dereham	5313	5661	„ N. E. D. Cartledge	W. A. Norris
King's Lynn M.B. ...	3067	20583	„ J. W. McIntosh B.Sc. (P.H.)	J. W. Shaw
New				
Hunstanton	1064	3132	„ W. E. H. Bull	F. Wilkinson
Nth. Walsham	4256	4137	„ D. B. C. Lawson	W. Morris
Sheringham ...	928	4142	„ H. Morrison	F. Hall Smith
Swaffham ...	7592	2783	„ R. O. Townend	C. Frobisher
Thetford M.B.	7096	4098	„ A. Oliver, D.P.H.	L. G. Howell
Walsoken ...	4907	4058	„ H. L. Groom	T. M. Kerridge
Wells-next-Sea	2670	2505	„ E. W. Hicks	F. Rodwell
RURAL				
Aylsham ...	69341	16212	„ B. B. Sapwell	H. W. T. Trotter
Blofield ...	45783	14415	„ J. D. McKelvie	L. F. Beckwith
Depwade ...	79742	17690	„ F. N. H. Maidment	F. H. Bowden
Docking ...	87386	16284	„ B. G. Sumpter	A. B. Nowell
Downham ...	85411	15503	„ J. Gibb	S. C. Rigg
E. & W. Flegg	28991	10159	„ W. Royden	A. Coulter
Erpingham ...	62167	17018	„ D. B. C. Lawson	G. L. Evatt
Forehoe ...	38528	12910	„ A. P. Agnew	A. W. Hobbs
Freebridge Lynn ...	75075	12352	„ O. L. Appleton	A. W. Plowright
Henstead ...	42380	10779	„ C. P. R. Gibson	G. A. J. Browne
King's Lynn...	1638	931	„ T. O. Hutton	J. W. Shaw
Loddon and Clavering ...	60273	11822	„ E. N. P. Martland	C.W. Pritchard
Marshland ...	51091	14130	„ A. J. Hawes	J. T. Dewhurst
Mitford and Launditch	102371	17107	„ D.P.H. N. E. D. Cartledge	B. E. Penny
St. Faith's ...	48933	14111	„ S. H. Long	H. S. Hawkins
Smallburgh ...	62627	13986	„ B. D. Z. Wright	A. L. Taunton
Swaffham ...	74556	6769	„ E. F. Rose	W. H. Edwards
Thetford ...	95873	9647	„ G. Cowan	R. A. Over.
Walsingham...	79996	15815	„ R. A. Norman	W. H. Moffat
Wayland ...	68774	13150	„ E. F. Rose	C. Whitworth

STATISTICS AND SOCIAL CONDITIONS OF THE ADMINISTRATIVE COUNTY.

AREA	...	...	...	...	...	1,303,568 acres
POPULATION—CENSUS, 1931	...	...	...	...	...	321,933
	Estimated by Registrar-General, mid-1933					321,900
NO. OF INHABITED HOUSES, 1931	...	...	...	...	...	85,858
NO. OF FAMILIES OR SEPARATE OCCUPIERS, 1931	...	...	...	...	...	86,515
					<i>General purposes.</i>	<i>Special purposes.</i>
RATEABLE VALUE	...	...	...	...	£1,124,219	£1,028,739
PRODUCE OF PENNY RATE	...	...	...	...	£4,262	£3,885

Norfolk is the fourth largest Administrative County in England. The population is sparsely distributed over a large rural area, there being one person to every four acres. This feature, taken in conjunction with the fact that the staple industry is agriculture, no doubt accounts largely for the good health which obtains in the County. The bracing air is mainly due to the extensive coastline of approximately 90 miles. The County is bounded on the East, North and North-West by the North Sea; in the West the Rivers Ouse and Nene divide it from Cambridgeshire; and in the South the Waveney, Thet, and Little Ouse Rivers separate the County from Suffolk.

Births and Deaths.

The live births registered during 1933 numbered 4698, of which 2414 were males and 2284 females. The illegitimate births were 23 less than last year, viz., 276, comprising 147 males and 129 females.

204 stillbirths were registered, which give a rate of 43·42 per 1000 live births. This was an increase of 25 on the number recorded in 1932.

The following table shows the number of live births registered and the birth rates during the past five years:—

Year.	URBAN.		RURAL.		ADM. COUNTY.		Rate for England & Wales.
	Net No.		Net No.		Net No.		
	Regstd.	Rate.	Regstd.	Rate.	Regstd.	Rate.	
1929 ...	841	13·61	4126	15·78	4967	15·36	16·3
1930 ...	873	14·32	4049	15·55	4922	15·32	16·3
1931 ...	863	14·29	4165	16·04	5028	15·71	15·8
1932 ...	897	14·79	4020	15·40	4917	15·28	15·3
1933 ...	857	14·16	3841	14·69	4698	14·59	14·4

The number of deaths of civilians belonging to the county, after the allocation of transferable deaths, was 4189, giving a net death-rate of 13·01 per thousand of the civil population.

The following table gives a comparison with the number of deaths and death-rates during the past five years:—

Year.	URBAN.		RURAL.		ADM. COUNTY.		Rate for England & Wales.
	No. of		No. of		No. of		
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	
1929 ...	903	14·61	3433	13·14	4336	13·42	13·4
1930 ...	668	10·96	3049	11·73	3717	11·58	11·4
1931 ...	770	12·75	3273	12·62	4043	12·65	12·3
1932 ...	818	13·48	3348	12·82	4166	12·95	12·0
1933 ...	795	13·14	3394	12·98	4189	13·01	12·3

There were 251 deaths of Infants under one year, which gives a death rate of 53.43 per 1000 live births, compared with 64.0 in England and Wales.

The infant death rates for the previous five years were:—

1928.	1929.	1930.	1931.	1932.
56.04	59.99	46.93	52.70	54.91

16 deaths occurred in illegitimate infants, which represents a death rate of 57.97 per 1000 illegitimate live births. In 1932 the rate was 73.58 and in 1931 69.69.

Deaths from Measles (all ages) : 1.

Deaths from Whooping Cough (all ages) : 19.

Deaths from Diarrhoea (under 2 years of age) : 11.

There were 3 deaths from Puerperal Sepsis and 10 from other Puerperal causes. The maternal mortality rate per 1000 live births was 2.76, compared with 4.42 for England and Wales. Our figure is low. The Council is considering a scheme for the provision of an ante-natal service for midwives' cases, which it is anticipated will further reduce this maternal mortality.

The following table gives the death-rates per 1000 population from certain causes, together with the corresponding rates for the previous five years:—

DISEASE.	1929.	1930.	1931.	1932.	1933.
Cancer	1.67	1.68	1.61	1.91	1.94
Respiratory Diseases ...	1.46	1.09	1.45	1.19	1.21
*Zymotic Diseases	0.27	0.11	0.13	0.22	0.16
Tuberculosis (Pulmonary) ...	0.61	0.57	0.51	0.52	0.44
„ (Non-pulmonary)	0.15	0.16	0.15	0.18	0.13

*Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Enteric Fever, Diarrhoea (children under 2 years of age).

A table giving the causes of death at specified ages will be found on page 8.

In common with the whole country, the number of births continues to fall. In the urban districts there were 40 less births than in 1932, whilst in the rural districts there were 219 less. The drop is slightly higher in the urban areas. What is the cause of this continual fall? Undoubtedly many young married couples now-a-days do consider the economic side and deliberately limit their families according to their means. This is perfectly sensible, but the same cannot be said for those who will not have children because it would interfere with their ordinary round of pleasures (visits to cinemas, dances, and the like).

The older couples still seem to be as fertile as ever, and it is quite a common event for the Maternity and Child Welfare Sub-Committee to consider applications for milk, teeth and free midwives in cases where there are 8 to 10 children. In his notes on the Census of 1931, the Registrar-General draws attention to the decrease, aggregating to 8.2 per cent., in the category of families of five persons and upwards, and the increasing predominance of the three and two person family.

This fall in the births over a period of years leads to a larger preponderance of older people in the population, with a consequently higher death rate. It is significant that 61.5 per cent. of the deaths in the County during 1933 occurred among persons of 65 years and upwards.

The following table gives the causes of death at specified ages:—
(Figures given by Registrar-General).

CAUSES OF DEATH.	Total All Ages.	0-	1-	2-	5-	15-	25-	35-	45-	55-	65-	75-
Typhoid and Paratyphoid Fevers	1	—	—	—	1	—	—	—	—	—	—	—
Measles	1	—	—	1	—	—	—	—	—	—	—	—
Scarlet Fever	1	—	—	—	—	—	—	—	1	—	—	—
Whooping Cough	19	7	2	10	—	—	—	—	—	—	—	—
Diphtheria	18	2	1	5	10	—	—	—	—	—	—	—
Influenza	207	2	—	—	3	6	7	16	24	25	36	88
Encephalitis Lethargica	6	—	—	—	—	—	—	1	2	1	2	—
Cerebro-spinal Fever	3	—	1	—	1	—	—	—	1	—	—	—
Tuberculosis of the Respiratory System	141	—	—	1	4	25	40	30	16	16	7	2
Other Tuberculous Diseases	41	2	3	10	5	6	4	5	4	2	—	—
Syphilis	11	1	—	—	—	—	—	1	3	3	2	1
General Paralysis of the insane, tabes dorsalis	7	—	—	—	—	—	—	1	1	1	3	1
Cancer, Malignant Disease	626	—	—	1	—	2	3	25	78	128	213	176
Diabetes	58	—	—	—	1	—	2	—	5	14	18	18
Cerebral Hæmorrhage, etc.	238	—	—	—	—	—	—	3	14	27	66	128
Heart Disease	895	—	—	—	3	4	7	11	37	110	241	482
Aneurysm	8	—	—	—	—	—	—	—	4	2	1	1
Other Circulatory Diseases	251	—	—	—	—	—	1	—	2	19	66	163
Bronchitis	164	10	2	1	1	—	—	1	1	4	27	117
Pneumonia (all forms)	171	30	18	8	3	2	7	10	12	21	23	37
Other Respiratory Diseases	54	3	1	—	—	2	3	4	7	7	13	14
Peptic Ulcer	30	—	—	—	—	1	4	4	4	5	7	5
Diarrhœa, etc.	22	9	2	—	—	—	2	—	2	2	3	2
Appendicitis	19	—	—	—	2	—	3	4	2	4	2	2
Cirrhosis of Liver... ..	13	—	—	—	—	—	—	—	1	2	8	2
Other Diseases of Liver, etc.	20	—	—	—	—	—	—	1	4	2	4	9
Other Digestive Diseases	81	3	2	4	4	—	3	5	8	12	22	18
Acute and Chronic Nephritis	90	—	—	—	—	2	2	3	9	10	22	42
Puerperal Sepsis	3	—	—	—	—	—	2	1	—	—	—	—
Other Puerperal Causes	10	—	—	—	—	1	7	1	1	—	—	—
Congenital Debility and Malformation, Premature Birth, etc.	167	164	1	1	—	1	—	—	—	—	—	—
Senility	235	—	—	—	—	—	—	—	—	—	14	221
Suicide	48	—	—	—	—	3	15	4	10	7	5	4
Other Violence	140	3	2	5	9	15	10	17	20	17	9	33
Other Defined Diseases	356	14	6	11	13	5	18	20	38	60	91	80
Causes Ill-defined or Unknown	34	1	2	—	—	—	—	1	1	4	17	8
All Causes	4189	251	43	58	60	75	140	169	312	505	922	1654

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Staff.

A list of the staff is given on pages 3 and 4.

Laboratory.

The County Public Health Laboratory was established in 1920 for the purpose of providing bacteriological facilities for the general practitioners in the County. The laboratory is equipped with modern apparatus, and is available for urgent work on Sundays and Public Holidays.

The scope of work undertaken during the past five years is indicated in the following table:—

	1929	1930	1931	1932	1933
Swabs for diphtheria bacilli ...	2574	2437	1292	2007	1773
Swabs for hæmolytic streptococci ...	—	—	—	269	27
Swabs for Vincent's angina ...	—	—	4	1	—
Swabs for organisms ...	—	23	—	—	—
Sputum for tubercle bacilli ...	1181	1049	1021	954	921
Urine for tubercle bacilli ...	25	26	22	20	11
Fæces for tubercle bacilli ...	13	1	2	2	1
Pus for tubercle bacilli ...	6	4	4	1	13
Cerebro-spinal fluid for tubercle bacilli ...	8	—	1	1	1
Pleural effusion for tubercle bacilli ...	—	5	10	8	7
Tuberculin dilutions prepared ...	19	35	30	47	35
Tuberculin ointment prepared ...	79	99	153	218	235
Milk for tubercle bacilli ...	3	—	—	3	29
Blood for Widal ...	59	56	42	61	56
Blood counts ...	7	2	—	2	1
Urine, various ...	19	23	30	15	36
Fæces for typhoid ...	12	5	8	5	17
Hairs for ringworm ...	3	7	3	6	2
Vaccines prepared ...	4	4	4	2	1
Milk for cleanliness ...	—	—	20	126	90
Milk for Br. Abortus ...	—	—	20	255	—
Milk various ...	—	3	—	—	—
Shellfish for B. Coli ...	—	30	—	110	18
Specimens of sewage and river water...	—	—	—	36	50
Specimens of water ...	104	112	95	115	89
Smears for organisms ...	10	8	18	10	1
Miscellaneous specimens ...	24	33	14	15	28
Totals ...	4150	3962	2793	4289	3442

Ambulance Facilities.

(a) Infectious Cases.

The County Council has no ambulance.

The Wisbech Hospital (serving Marshland R.D. and Walsoken U.D.) and the Cromer Hospital have an ambulance, and some of the other hospitals use an old car or cab for this purpose. Others hire a car as required and disinfect it afterwards. Considerable difficulty is experienced when a patient has to be sent to an isolation hospital outside the district in which the case occurred.

(b) **Non-infectious Cases.**

The County Council has no ambulance, but the Order of St. John of Jerusalem and the British Red Cross Society have ambulances stationed at the following places :—Attleborough, Cromer, Downham Market, East Dereham, Fakenham, Hunstanton, and Swaffham. There are also affiliated ambulances at King's Lynn, North Walsham, and Norwich. During the year, 2337 cases were conveyed, the total mileage being 64,259 miles. This service has proved quite adequate.

Nursing in the Home.

(a) **General.**

Professional nursing in the home continues to be provided by the District Nursing Associations, the majority of which are affiliated to the Norfolk Nursing Federation. The Federation is assisted by grants from the County Council, with whom close co-ordination is maintained.

(b) **Infectious Diseases.**

No arrangements are made by the County Council, but certain District Councils engage nurses temporarily in necessitous cases which cannot be dealt with otherwise.

Clinics and Treatment Centres.

Particulars of these are given on pages 17 and 34.

Hospitals.

No alteration has been made during the year in the services provided by the Public and Voluntary Hospitals.

The County Council makes a block grant to the Norfolk and Norwich, the Jenny Lind and the West Norfolk and Lynn Hospitals. This grant is based on the services rendered and is revised annually.

LOCAL GOVERNMENT ACT, 1929.

(a) **Administration.**

The arrangements for the discharge of the medical services transferred to the County Council under the Local Government Act, 1929, remain as stated in the Annual Report for 1930.

(b) **Institutions.**

No alteration in the classification of the Institutions has been made during the year.

There are approximately 845 beds (356 male, 442 female, 47 children) available for sick in the Public Assistance Institutions, apart from Swainsthorpe.

The Swainsthorpe Institution continues to accommodate cases of senile dementia. There has been no difficulty during the year in coping with cases from the County Mental Hospital, and in addition troublesome patients have

been admitted from the various Public Assistance Institutions. There are at present 84 male and 90 female beds. The accommodation for females is taxed to the full, however, and the provision of further beds is under consideration.

(c) **Institutional provision for the care of mental defectives.**

The Institution at Heckingham has accommodation for 176 cases (120 males and 56 females).

The Council's Mental Deficiency Colony at Little Plumstead Hall has accommodation for 256 patients (110 males, 146 females). At the time of writing this Report proposals are under consideration to provide two additional villa blocks (1 male, 1 female) for low grade cases.

(d) **Poor Law Medical Out-Relief.**

The County is divided into 13 areas for Public Assistance purposes. Beyond the filling of vacancies there has been no alteration in the administration of the out-door relief. A list of the districts was given in the 1932 Report.

During the year the provisions of the orthopædic scheme have been extended by the Public Assistance Sub-Committee accepting responsibility for all cases referred by District Medical Officers, together with cases over 16 years of age amongst elementary and secondary school children where the Education Committee had previously provided treatment.

MATERNITY AND CHILD WELFARE.

Midwifery Services.

The County Council is the Local Supervising Authority for the whole of the Administrative County.

All midwives certified under the Midwives Acts must notify the County Council each year of their intention to practise within the Administrative County. The following table is a brief summary of such notifications received during 1933:—

		Cert. C.M.B.	Bona- fide.	Total.
Permanent	...	160	3	163
Temporary	...	4	—	4
		<hr/>	<hr/>	<hr/>
Total	...	164	3	167
		<hr/>	<hr/>	<hr/>

The number of parishes provided with the services of a district nurse midwife is slowly increasing. There are 690 parishes in the County, and by the end of the year 455 were covered by 125 district nurses undertaking midwifery; of these, 120 are affiliated to the Norfolk Nursing Federation. In addition, it is estimated that a further 60 parishes not otherwise provided for are covered by independent midwives. It follows that between one-fifth and one-quarter of the County is still without the services of a skilled midwife. From a rough compilation the actual population of the uncovered parishes is just under 51,000. As this represents only 15 per cent. of the population of the Administrative County the position is not quite so

unsatisfactory as would at first appear. The Ministry of Health has emphasized the fact that a midwifery service covering the whole county is essential, and the matter is at present receiving the consideration of the Norfolk Nursing Federation. A number of existing Nursing Associations are planning extension of their districts; endeavours are being made to foster interest in the establishment of nursing associations and the provision of district nurse midwives in the uncovered areas. Although the County Council gives considerable grants towards this work it will be appreciated that the provision of a district nurse midwife depends primarily on the support which is forthcoming from the residents of the locality in which she works. The establishment of nursing associations is rendered more difficult by the sparseness of the population in many areas. I have made an analysis of the uncovered areas, and find that over 100 parishes have less than 250 inhabitants. It is possible that an increasing number of women may avail themselves of the facilities at the County Public Assistance Institutions, but although these are no longer classified officially as workhouses, it will be many years before the Poor Law stigma is removed in the eyes of the general public. Owing to the characteristics of the county there will always be a large number of confinements in the homes of the populace, and the sooner all parishes can be provided with the services of competent nurse midwives the better from a public health point of view.

Training of Midwives.

The County Council makes a grant of £30 in respect of each midwife permanently appointed in the County, working under the auspices of the Norfolk Nursing Federation.

Inspection of Midwives.

The Inspector of Midwives and Superintendent Health Visitor is also Superintendent of the County Nursing Association. There are three Assistant Inspectors—one appointed by the County Council and two by the Norfolk Nursing Federation.

635 routine inspections were made during the year, being an average of nearly 4 visits per midwife.

Under the rules of the Central Midwives Board, midwives are required to summon medical help under certain specified emergencies, and to notify the Local Supervising Authority that they have done so. 386 notifications were received during 1933 (315 for mothers and 71 for infants), *i.e.*, 29·7% of the cases attended by midwives.

During 1933, 2871 births were attended by midwives; 1298 as midwifery cases and 1513 as maternity cases.

The following table gives a summary of the number of cases in which midwives summoned medical aid during the past five years:—

Year.		No. of Midwifery Cases.		No. of Medical Aid Forms Issued.
1929	...	1221	...	297
1930	...	1130	...	367
1931	...	1368	...	388
1932	...	1340	...	388
1933	...	1298	...	386

Public Health (Ophthalmia Neonatorium) Regulations, 1926.

26 cases of Ophthalmia Neonatorium were notified during the year, and with the exception of one case removed to hospital, all were treated at home. One child died at 16 days of age, the cause of death being prematurity. In the remaining 25 cases vision was unimpaired.

Public Health (Puerperal Fever and Pyrexia) Regulations, 1926.

10 cases of Puerperal Fever, and 44 of Puerperal Pyrexia, were notified during the year.

The County Council's Scheme includes the provision of beds at the Norfolk and Norwich Hospital, the services of Consultants, bacteriological facilities, and arrangements for trained nursing at home. In each case where a second opinion is provided under the scheme, the Consultant submits a special report to the County Medical Officer. During 1933, 5 cases of fever and 18 cases of pyrexia were removed to the hospital, and the services of a Consultant were provided in 1 case of fever and 9 cases of Puerperal Pyrexia.

Institutional Provision for Mothers and Children.

In the Public Assistance Institutions there are 31 beds and 25 cots provided for maternity cases. During the year 61 patients were confined in these Institutions. The County Council has also arranged with Addenbrooke's Hospital, Cambs., for the admission of cases of anticipated abnormal labour. Three patients were admitted during the year, and in cases where the County Council pays the maintenance charges patients are required to contribute in accordance with their means.

Maternal Mortality.

Maternal deaths are personally investigated by the County Medical Officer, and a confidential report submitted to the Maternal Mortality Committee of the Ministry of Health. The causes of these deaths during the year as given by the Registrar-General were as follows:—

Puerperal Sepsis	...	...	...	3
Other Puerperal causes	...	...	...	10
				<hr/>
Total	...	...	...	13
				<hr/>

In 10 cases reports were submitted to the Ministry and the remaining cases were not notified to the County Medical Officer.

It is gratifying to be able to record a considerable reduction in the maternal mortality rate this year. The number of maternal deaths per 1000 births is only 2.76 compared with 3.86 in 1932.

INFANTILE STATISTICS.

RURAL.

Sanitary District.	Estimated Population.	Total L. Births.	Birth Rate		Deaths under 1 year. 1933.	Infantile Death Rate	
			1932.	1933.		1932.	1933.
Aylsham ...	16,040	238	14.93	14.84	18	45.83	75.63
Blofield ...	15,010	202	15.20	13.46	9	39.47	44.55
Depwade ...	17,460	247	14.95	13.41	13	49.43	52.63
Docking ...	16,320	246	14.96	15.07	7	48.98	28.46
Downham ...	15,500	258	17.66	16.65	14	84.25	54.26
Erpingham ...	16,710	242	13.71	14.48	5	63.64	20.66
Flegg, E. & W.	10,330	144	17.60	13.94	8	54.95	55.56
Forehoe ...	13,120	206	16.77	15.70	8	41.10	38.83
Freebridge Lynn ...	12,560	169	14.10	13.46	11	45.71	65.09
Henstead ...	11,010	170	16.13	15.44	14	51.14	82.35
Loddon and Clavering ...	11,750	197	17.46	16.77	8	48.79	40.61
Lynn, West ...	986	7	9.35	7.10	1	—	142.86
Marshland ...	14,100	217	17.02	15.39	17	70.83	78.29
Mitford and Launditch ...	16,780	252	13.64	15.02	15	43.29	59.52
St. Faith's ...	15,220	236	17.16	15.51	14	39.37	59.32
Smallburgh ...	14,070	203	13.95	14.43	13	76.92	64.04
Swaffham ...	6,639	84	14.18	12.65	1	41.67	11.90
Thetford ...	9,125	130	16.02	14.25	9	67.57	69.23
Walsingham ...	15,640	208	14.04	13.30	11	58.82	52.88
Wayland ...	13,030	185	15.33	14.20	14	75.00	75.68
Total ...	261,400	3841	15.40	14.69	210	55.22	59.86

URBAN.

Cromer ...	4,034	42	13.04	13.13	2	37.74	47.62
East Dereham	5,702	83	15.39	14.56	6	22.73	72.29
Diss ...	3,428	50	10.96	14.59	—	—	—
Downham ...	2,444	33	16.83	13.50	2	24.39	60.61
Hunstanton ...	2,852	33	8.30	11.57	3	—	90.91
Sheringham ...	4,022	42	12.39	10.44	3	20.00	71.43
Swaffham ...	2,706	33	13.89	12.20	3	78.95	90.91
North Walsham	4,208	61	13.81	14.50	4	51.72	65.57
Walsoken ...	4,183	87	14.46	20.80	4	84.75	45.98
Wells-next-Sea	2,480	28	12.89	11.29	2	31.25	71.43
King's Lynn M.B. ...	20,400	311	17.11	15.25	8	77.14	25.72
Thetford M.B.	4,041	54	16.11	13.36	4	45.45	74.07
Total ...	60,500	857	14.79	14.16	41	53.51	47.84

Total for Administrative County ...	321,900	4698	15.28	14.59	251	54.91	53.43
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Notification of Births.

The County Council is Maternity and Child Welfare Authority for the whole of the Administrative County, with the exception of King's Lynn Borough.

All births occurring in the Maternity and Child Welfare area are notifiable direct to the County Medical Officer under the Notification of Births Acts, 1907 and 1915, as amended by the Notification of Births (Transfer) Order, 1930. Each case is followed up by a health visitor, and any defects found are reported and dealt with under the appropriate schemes.

The following are particulars of births occurring during the year:—

Births notified in the County Maternity and Child Welfare Area:—

	Live Births.	Still-births.	Total.
By Doctors	2851	113	
By Midwives	1074	26	
By Parents	3	—	
	<hr/> 3928	<hr/> 139	4067

Births notified in King's Lynn M.B.:—

By Doctors	173	1	
By Midwives	147	3	
	<hr/> 320	<hr/> 4	324

Total births notified	4391
Births reported by registrars as registered, but not notified	122
Births not reported	389
Total births registered	<hr/> 4902

4698 live, and 204 stillbirths were registered, whilst 4248 and 143 respectively were notified under the Acts; 122 were reported by registrars as registered but not notified. The total births of which particulars were received was 4513, compared with 4902 registered. Particulars of every birth or stillbirth notified are sent monthly to the registrars in order that they may be compared with the registers and a return made to the County Medical Officer of those registered but not notified. It is obvious, however, that the registrars are not supplying complete returns, as during the year under review it will be seen that no particulars were received in respect of 389 births, which is actually an excess of 5 over the corresponding figure for 1932. This is a serious discrepancy, the result being that most of these unreported births are not followed up by a health visitor.

Health Visiting.

There are four whole-time health visitors, whose work covers over a third of the parishes in the County. In the remaining 439 parishes, 121 district nurses act as health visitors in a part-time capacity. The following

table gives particulars of the scope of the health visiting service during the past five years :—

Year.	Parishes Covered.			Parishes Unprovided.	Total.
	By Whole-time Health Visitors.	By Nurses from Local Associations as part-time Health Visitors.			
		Affiliated.	Non-affiliated.		
1929	112	409	5	164	690
1930	192	440	10	48	690
1931	256	424	10	—	690
1932	254	421	15	—	690
1933	251	432	7	—	690

The following is a brief summary of the health visitors' work during the same period :—

Year.	Expectant Mothers.		Infants under 1 year.		Children 1—5 years.	Grand Total.
	First Visits.	Total Visits.	First Visits.	Total Visits.		
1929	2106	7028	2846	23863	56509	87400
1930	2354	8492	3340	24369	59003	91864
1931	2589	9439	4417	34117	76981	120537
1932	2709	9933	4305	34928	84258	136133
1933	2616	9913	3780	32930	87943	137182

Maternity and Child Welfare Centres.

In connection with the provision of welfare centres the County Council has agreed that the needs of the County would be better met by concentrating on a comparatively small number of large centres which with transport facilities would be capable of serving the whole area, rather than on a large number of small centres ill-attended and ill-equipped, which could not be provided with a medical officer at each session.

There are at present 11 County Council centres. More are needed, however, and it is hoped to establish additional centres during 1934. Progress in this direction has been retarded to some extent owing to the difficulty of obtaining suitable accommodation at a reasonable rental in certain districts. It is remarkable that this position has arisen in one of the largest Urban Districts, and also in a thickly populated suburb of Norwich. In both instances it is anticipated that centres will soon be established. For some time past I have considered the desirability of using combined clinics in dealing with the pre-school and school child, and some attempt is long overdue to endeavour to break down the artificial barrier between the two groups of children. With this object in view, the question of utilising certain of the school medical inspection clinics for welfare centre purposes is being explored.

The following tables gives particulars of attendances at the centres during the year.

Centre.	Address.	First Attendances.		Total Attendances (Including First).		No. of Sessions.	Average Attendance.
		Under 1 year.	1-5 years.	Under 1 year.	1-5 years.		
(1) County Council Centres—							
Aylsham ...	Scouts' H.Q. Hut, Peterson's Lane	54	26	211	355	23	24.6
Costessey ...	Parish Hall	16	14	100	176	12	23.0
Docking ...	Oddfellows' Hall...	17	9	72	193	12	22.1
Fakenham	Courthouse	33	56	133	234	11	33.4
Hingham ...	Lincoln Hall	20	21	104	220	12	27.0
Holt ...	Church Hall	20	11	143	174	16	19.8
Norwich ...	31, Thorpe Road...	30	38	113	122	20	11.7
Sheringham	St. Peter's Church Hall	28	2	213	182	18	29.9
Swaffham ...	Baptist Chapel						
	School Room	9	7	53	164	10	21.7
Wells ...	Friends' Meeting House	20	29	83	173	11	23.3
Wymondham	Methodist School- room	26	22	118	156	12	22.8
(2) Voluntary Centres—							
Blofield ...	Parish Hall	22	9	159	315	26	18.2
King's Lynn	St. James' Park	124	49	1467	1949	51	67.0
Thetford ...	Old Malting House	50	15	296	309	24	25.2
Walsingham	Dr. Sturdee's Surgery	16	9	46	35	11	7.4
Woodbast- wick	The Hospital	5	3	17	75	11	8.4
(3) Centres Outside Adm. County—							
*Beccles ...	Beccles	5	3	53	41	51	1.8
*Wisbech and Walsoken	Church House	35	7	381	159	50	10.8

* Norfolk children only.

The County Council makes an annual grant to each of the voluntary centres mentioned under heading (2) of the table. Grants are also made to the centres outside the County at Beccles and Wisbech in respect of the attendances of Norfolk mothers and children.

Ante and Post-Natal Work.

At each of the County Council's Centres, while no separate ante or post-natal clinics are held, expectant or nursing mothers may consult the medical officer at any session. Mothers attending centres solely for the purpose of accompanying children are not regarded as post-natal attendances.

In connection with the Thetford Welfare Centre, separate ante and post-natal clinics have been established. During the year 32 ante-natal sessions were held, and the attendances numbered 57, and at the post-natal clinic 216 sessions were held with 342 attendances.

At Walsingham patients are allowed to attend the local Doctor's surgery during the usual hours for ante-natal consultations. During 1933, the attendances were as follows:—

First Attendances	...	...	...	43
Total Attendances	...	...	...	243

Facilities for ante and post-natal examinations are also available at the King's Lynn Welfare Centre. The majority of the mothers attending, however, belong to King's Lynn Borough.

A scheme to provide for ante-natal examination by a Doctor in mid-wifery cases, together with arrangements for the services of a gynæcologist is at present receiving the attention of the Council, and it is hoped that in the near future every expectant mother in the county will have an opportunity of obtaining medical advice ante-natally if she so desires.

Weighing Centres.

A number of Centres have been established by voluntary agencies, usually the local nursing associations, helped in certain cases by the local detachment of the British Red Cross Society. These centres are not assisted by grants from the County Council. They comprise:—

Attleborough, Bawdeswell, Brancaster, Brooke, Buxton, Cley-next-Sea, Coltishall, Dereham, Diss, Earsham, Gunton, Hardingham, Hilgay, Hunstanton, Kenninghall, Long Stratton, Mulbarton, North Walsham, Harleston, Saxlingham, Shotesham, Stanhoe, Syderstone, Stoke Holy Cross, Thornage, Thorpe St. Andrew, Woodton.

Milk Scheme.

Of the 32 sanitary districts, 12 continue to administer the County Council's Scheme, 2 have their own arrangements, and the remaining 18 are dealt with direct by the County Medical Officer. All applications from the latter category are considered by a Special Sub-Committee of the County Council. The districts administering the Scheme deal with scale cases through their Medical Officers of Health, ex-scale applications being referred to the special County Sub-Committee for consideration.

During 1933, the District Medical Officers of Health issued 528 certificates in respect of 116 individuals, and the County Medical Officer issued 747 certificates for 209 cases. Although in a few very exceptional cases 2 pints daily are granted, the majority of these certificates authorise 1 pint daily for a month.

Particulars of the scale at present in force are set out in the Annual Report for 1931.

Dental Scheme for Necessitous Expectant and Nursing Mothers.

Under this Scheme, which was inaugurated in 1926, the County Council has established a panel of fully qualified dental surgeons who carry out treatment at their surgeries throughout the county at the same fees as those in force for National Health Insurances cases.

Under the present arrangements applications are classified as follows:—

Class	Income per head per week after deducting Rent & Insurance.	Patient's contribution towards extractions fillings or scaling.	Patient's contribution towards dentures.
I.	... Under 6/-	... One-sixth cost	... One-third cost
II.	... 6/- — 7/-	... One-fifth cost	... Two-fifths cost
III.	... 7/- — 8/-	... One-quarter cost	... One-half cost
IV.	... 8/- — 10/-	... One-third cost	... Two-thirds cost

No case is considered where the income per week exceeds 10/- per head.

Each application is considered on its merits by a Special Sub-Committee which meets weekly, and in cases of exceptional hardship patients' contributions are reduced below the normal scale figure.

The following table indicates the development of the scheme during the past 7 years:—

(i.) Extractions, Fillings, Scaling.

Year.	Class I.	Class II.	Class III.	Class IV.	Total.
1927	... 27	10	4	—	41
1928	... 26	11	1	—	38
1929	... 80	32	2	—	114
1930	... 161	57	13	—	231
1931	... 243	125	9	—	377
1932	... 49	11	5	—	65
1933	... 74	11	13	9	107

(ii.) Dentures.

Year.	Class I.	Class II.	Class III.	Class IV.	Total.
1927	... 17	4	2	—	23
1928	... 11	4	—	—	15
1929	... 57	26	1	—	84
1930	... 75	20	11	—	106
1931	... 154	65	8	—	227
1932	... 149	62	1	—	212
1933	... 77	12	12	7	108

The majority of our applications are for complete extractions and the provision of full upper and lower dentures.

Prevention of Deafness.

Two part-time Consultants have been appointed to examine and advise upon young children whose hearing is apparently defective.

Prevention of Blindness.

A scheme was instituted during the year for young children with defective vision to be examined by the part-time Ophthalmic Specialists.

Infant Life Protection.

Part I. of the Children Act, 1908, was amended on 1st January, 1933, by Part V. of the Children and Young Persons Act, 1932.

The amended Act has raised the age for notification from 7 to 9 years. It has brought boarding schools, so far as they receive children under 9 years of age, within its scope, with the result that 41 schools are now subject to inspection by a medical officer of the Authority. Homes to which children are sent by societies, such as the Children's Country Holiday Fund, have also to be approved. Notification of some 89 homes was received, and they were all inspected before being approved. Some confusion and extra work was caused through notification being sent by the Organisers of all homes and not those which were only to receive children under 9 years. Efforts are being made to avoid this, as far as possible, in future.

General arrangements continue as outlined in the 1931 Report, the whole-time health visitors acting as Infant Life Protection visitors in their districts, and the remainder of the County being covered by the whole-time school nurses.

Primary reports are made on the home, the foster-parent, and the nurse child. Subsequent visits are paid usually at 3—4 monthly intervals, but in cases where conditions do not appear to be entirely satisfactory more frequent inspections are made.

One death of an infant was reported during the year.

No case arose which necessitated legal proceedings under Part I. of the Children Act.

The following figures indicate the position at the beginning and end of the year 1933 :—

1. FOSTER PARENTS.

No. on Register on January 1st, 1933	...	...	187
No. removed from Register during year	...	...	72
No. of new registrations	...	...	132
No. re-instated on Register on January 1st, 1933	...	...	43
No. on Register on December 31st, 1933	...	...	290

2. NURSE CHILDREN.

No. on Register on 1st January, 1933	...	...	245
No. removed from Register during year:—			
(a) To parents or Benevolent Societies	...	78	
(b) Attained age of 9 years	...	52	
(c) Adopted by Foster Parents	...	3	
(d) Removed to Public Assistance Institutions	...	4	
(e) Removed to other counties	...	3	
(f) Died	...	1	
(g) Miscellaneous	...	11	
		—	152
No. of new registrations	...	...	251
No. on Register on December 31st, 1933	...	...	423

3. VISITS MADE BY INSPECTORS DURING YEAR.

No. of Primary Reports:—			
(a) Homes	...	183	
(b) Holiday Homes	...	89	
(c) Nurse Children	...	228	
No. of further reports on Nurse Children	...	1228	
Total	...	—	1728

Maternity and Nursing Homes.

All Homes which apply for registration are visited by the County Medical Officer, and, if found suitable, registered.

The County Council has adopted the model bye-laws. Each home when registered is supplied with a register, receipt book, and a copy of the bye-laws. Periodical visits are made to the registered homes, the inspecting officers being the County Medical Officer, the Deputy County Medical Officer and the Inspector of Midwives.

The following table gives particulars of the action which has been taken under the Nursing Homes Registration Act, 1927, during the year ended 31st December, 1933:—

No. of applications for registration	...	...	5
No. of Orders cancelling registration	...	...	2

Total No. of Homes registered at 31st Dec., 1933:—

Maternity Cases only	...	3	
Medical and Surgical Cases only	...	3	
Maternity and General cases	...	20	
		—	26

No. of appeals against Orders cancelling registration	...	Nil
No. of applications for exemption	...	„
No. of exemptions (a) granted	...	„
(b) refused	...	„

No applications have been received under Section 9 (2) of the Act, for delegation of powers.

ORTHOPÆDIC TREATMENT.

Mr. M. W. Bulman, M.S., F.R.C.S., who had acted as part-time Surgeon to the County Council since the commencement of the Scheme in 1927, resigned at the end of 1932. In January, 1933, the Norwich Hospitals appointed Mr. H. A. Brittain, M.Ch., F.R.C.S., Assistant Surgeon in charge of orthopædic work, and the Council appointed him to fill the vacancy.

466 examinations were made by the Orthopædic Surgeon, as compared with 271 the previous year, the majority of the old cases on the register having been re-examined.

More use is now made of the Norwich Hospitals for in-patient treatment, and less patients are sent to Institutions outside the County, 79 patients being admitted to the former and only 10 to the latter.

Efficient treatment provided locally is a great advantage, but one or two problems have arisen. The accommodation at the Norwich Hospitals is not sufficient to meet the demand and many patients have to wait six months before beds are available. Urgent cases are, of course, dealt with more expeditiously, but, with the exception of females for admission to the Norfolk and Norwich, 6 months is often the waiting period. There were 43 cases on the waiting lists on the 31st December.

Patients are discharged soon after operations have been performed with limbs in plaster, and are then re-admitted in 4 to 6 weeks for its removal. With the limited accommodation at their disposal, this is the only course for the Hospitals to adopt, but it is one which does not meet with my entire approval owing to the difficulty of adequate home supervision. With the whole County to cover, and over 700 cases to visit, it is impossible for the one nurse to call more than fortnightly, and we have already had one or two instances of patients developing bad plaster sores. In a few cases it has been necessary to admit children to the infirmary of a Public Assistance Institution. These problems emphasise the need for the County Council to establish a convalescent orthopædic institution.

The Public Assistance Committee has now decided that all cases requiring orthopædic treatment shall be dealt with through the Scheme, including patients over 16 years of age who have previously come under the Education Committee's Section of the Scheme, provided, of course, the patients or their parents are unable to afford the expense involved.

Details of the treatment of children of school age are given in my Report as School Medical Officer, but some particulars which may be of interest are included in the following paragraphs.

1. Ascertainment.

209 new cases were reported upon during 1933, 104 of school age, 90 under school age, 12 tuberculous and 3 Public Assistance. Practically the whole of the cases of school age were reported by the Assistant Medical Officers and School Nurses in the course of routine school inspection, and the majority of those under school age by the Health Visitors and District Nurses.

2. Clinics held by the Orthopædic Surgeon.

40 clinics were held by the Orthopædic Surgeon, 31 at Norwich and 9 at King's Lynn. Of the 466 children examined, 290 were in connection with the Education Committee, 146 the Maternity and Child Welfare Committee,

19 the Tuberculosis Committee, and 11 the Public Assistance Committee. 126 were seen for the first time.

3. Institutional Treatment.

On 1st January, 1933, 3 patients were receiving treatment in local institutions and 25 at institutions outside the County. During the year 86 patients were admitted and 80 discharged from the former, whilst those admitted and discharged from the other institutions were 11 and 14 respectively.

93 patients were discharged from Hospitals during the year, and in only 7 of the cases actually treated can it be said that little or no benefit was obtained. Of these 7, 4 will receive further Hospital treatment in 1934, 2 have subsequently improved with home treatment, and the other child was mentally backward and incapable of providing the necessary co-operation. The results obtained are especially gratifying when it is realised that not only has there been correction of deformities but in 13 cases it has been possible for leg instruments, previously worn for periods up to 8 years, to be dispensed with.

4. Supply of Surgical Apparatus.

The following apparatus has been ordered during the year:—

	M.C.W.	T.B.	P.A.
Surgical boots	4	3	2
Surgical boots and instruments ...	8	—	—
Calipers	—	2	1
Spinal supports	3	2	4
Shoulder Splints	1	—	—
Club foot shoes	2	—	—
Artificial limbs	1	—	—
Alterations to ordinary boots ...	14	1	—
Straps for spinal supports	—	4	—
Repairs and alterations to apparatus ...	3	4	—
	<hr/> 36	<hr/> 16	<hr/> 7

Of the cases on the register at the end of the year, surgical apparatus was being worn by the following:—

	M.C.W.	T.B.	P.A.
Surgical boots	1	7	2
Ordinary boots wedged or otherwise altered	21	—	—
Surgical boots and leg instruments ...	5	6	1
Spinal support	1	5	4
Hip splints	—	2	—
Crutches	—	1	—
Collars	—	1	—
Shoulder splint	1	—	—
Artificial limbs	1	—	—
	<hr/> 30	<hr/> 22	<hr/> 7

5. Services of the Orthopaedic Nurse.

1727 visits were made by the Nurse, 919 to Education cases, 657 to Maternity and Child Welfare, 141 to Tuberculosis patients, and 10 to Public Assistance cases. The increasing number of children on the current register and the importances of cases being visited more often in order to ensure successful and efficient treatment, makes the appointment of a second Nurse a

necessity. The attention of the Committee has been called to this, but action has been postponed pending consideration of the question of providing an orthopædic institution.

7. Cases on the Register.

At the end of the year there were 750 current cases on the Register, as compared with 641 at the end of 1932, 605 at the end of 1931, 577 at the end of 1930, and 509 at the end of 1929. The former figure is made up of the following:—

	Education.	M.C.W.	T.B.	P.A.	Totals.
Flat feet and valgus ankles ...	93	9	—	—	102
Claw feet ...	17	—	—	—	17
Hammer toes ...	7	—	—	—	7
Hallux valgus ...	2	—	—	—	2
Deformed toes ...	—	3	—	—	3
Knock knees ...	30	—	—	—	30
Bow legs ...	5	—	—	2	7
Congenital deformities:—					
Hip ...	21	7	—	—	28
Spine ...	3	—	—	1	4
Feet ...	49	30	—	—	79
Neck ...	13	—	—	—	13
Arm ...	3	—	—	—	3
Hand ...	2	—	—	—	2
Legs ...	2	1	—	—	3
Toes ...	1	1	—	—	2
Spastic paralysis ...	45	7	—	1	53
Infantile paralysis ...	60	10	—	2	72
Muscular dystrophy ...	9	—	—	—	9
Erb's paralysis ...	3	3	—	—	6
Ischæmic palsy ...	1	—	—	—	1
Spinal deformities (not congenital) ...	36	3	16	3	58
Hip diseases (not congenital) ...	14	—	20	—	34
Wry neck (not congenital) ...	21	8	—	—	29
Chest deformities ...	3	—	—	—	3
Rickets ...	4	83	—	—	87
Round shoulders ...	5	—	—	—	5
Spina bifida ...	2	—	—	—	2
Osteomyelitis ...	7	1	—	2	10
Amputations ...	6	1	—	—	7
Old injuries ...	10	—	—	—	10
Knee ...	—	—	14	—	14
Ankle ...	—	—	2	—	2
Finger ...	—	—	7	—	7
Elbow ...	—	—	3	—	3
Shoulder ...	—	—	2	—	2
Leg ...	—	—	2	—	2
Thigh ...	—	—	1	—	1
Sacro-iliac joint ...	—	—	1	—	1
Multiple ...	—	—	1	—	1
Rib ...	—	—	1	—	1
Miscellaneous ...	21	6	1	—	28
	495	173	71	11	750

447 of these cases have been examined at least once by the Orthopædic Surgeon, and 223 have received institutional treatment.

SANITARY CIRCUMSTANCES OF THE AREA.

Water Supplies.

To enable the County Council to be informed as to the effect of last year's drought upon the water supplies in the County, a rough survey was made by the Staff of the Public Health Department early in 1934.

With one exception, the Urban Districts have main water supplies, and except in the Swaffham Urban District no shortage has been experienced. At Swaffham it has been necessary at times to cut off the supply between specified hours.

In the Rural Districts, wells are the main source of supply, and generally speaking they have, up to the present, withstood the drought, notwithstanding the fact that many of them are shallow. Where one well has gone dry it has usually been possible for a supply to be obtained from another one. This, of course, means that people have to carry their water for distances which would not be considered reasonable under normal circumstances.

For new buildings, the Local Authority has power to insist upon an adequate supply of water within a reasonable distance. Whilst the Public Health Act, 1875, and the Water Act, 1878, empower Local Authorities to take action with regard to existing houses, the financial limitation prevents this being of any practical value.

The following is an extract of the report recently made to the Public Health Committee:—

“For some time past discussions have taken place in Parliament concerning the supply of water in rural areas, and it has been suggested that this could be achieved by a grid system similar to that by which the supply of electricity has been developed during the past few years. One is not in a position to give an opinion as to the practicability of this suggestion as regards the whole country, but there seems to be no reason why the establishment of such a grid to serve the geographical County of Norfolk could not be considered. I have discussed the matter informally with the City of Norwich Water Engineer, and am informed that from an engineering point of view this appears to be practicable. The city takes its supply from the River Wensum, and uses approximately only one-sixth of the potential yield. Already an application has been received by the Corporation from Aylsham to extend their supply to this and other adjoining parishes. This, of course, would necessitate an Act of Parliament or the Corporation obtaining a Provisional Order to supply parishes outside the present statutory area. I am of opinion that the time is now opportune for the whole problem of water supply to be considered.”

The only important alteration in the water supply of the County during the past year has been the completion by the Forehoe Rural District of the piped supply for Wymondham. This was brought into use at the end of May.

Drainage and Sewerage.

The Parish of Heacham, in the Docking Rural District, is experiencing difficulties. There is a piped water supply and drainage is to cesspools, but owing to the impervious nature of the subsoil the ground is becoming water-logged. A report has been submitted to the Rural District Council advising the employment of an Engineer to submit a sewerage scheme for the parish, and early in 1934 the County Council was informed that this course would be followed.

It is customary to see in the annual reports of the District Medical Officers of Health that a number of privies have been converted into pail closets. As a result of my own visits in the County I am beginning to wonder whether we are not exchanging one insanitary method for another. True, with the pail closet, one does not come across the accumulation of years, but the filthy condition in which the pails are usually replaced after emptying is not altogether a great advance. Personally, I think the time is fast coming when Rural District Councils should arrange District schemes for the collection and disposal of night-soil, the essential part of such a scheme being the taking away of the full pail and the substitution of a clean disinfected pail in its place. One Urban District Council in the County is doing this at the present time, but I should like to see the scheme much more widely extended.

Scavenging.

Apart from the Urban Districts, scavenging schemes are generally only instituted by Rural District Councils for a few of the larger populated parishes, with the result that one constantly comes across a collection of tins, bottles and papers thrown just anyhow into some pit, and making a blot on the beauty of a countryside which is equal to any in England. It would be comparatively easy for Rural District Councils to divide their areas into a number of divisions each having a covered horse or motor refuse cart. The cart would visit each parish weekly and remove all the household refuse. This could then be dumped under controlled tipping in a suitable place. The cost being charged over the whole district should not fall too heavy on any individual parish. I hope that the District Councils for the new areas under the Revision of Districts Scheme will seriously consider this suggestion at the earliest opportunity.

Nine fruit-picking camps were visited by the County Medical Officer during the fruit-picking season and found in a satisfactory condition.

Rivers and Streams.

A stream near Attleborough, which flows into the River Thet, continues to be polluted by sewage and trade effluent. Analyses of samples taken from the stream during the year showed definite pollution, and the County Council has requested the Rural District Council to take steps to stop this pollution.

The analyses of samples taken from the effluent of the sewage disposal works of the East Dereham Urban District having shown this to be unsatisfactory, the District Council is considering schemes for improving the works.

No other complaints have been received during the year.

Sanitary Defects.

During the year about 120 complaints were received with regard to nuisances, housing defects, etc. These were referred to the Local Sanitary Authorities for action.

Schools.

(a) Water Supply.

Very few Elementary Schools are connected to a main water supply; the majority have wells on the premises, but where this is not the case water for drinking purposes is obtained by arrangement from neighbouring wells.

(b) Sanitary Conditions.

The Assistant Medical Officers when at the Schools report on the hygienic and sanitary conditions and any matters requiring attention are referred to the Education Committee.

(c) Infectious Disease.

It is the duty of Head Teachers to send immediate notification simultaneously to the District Medical Officer of Health and the School Medical Officer in respect of any child suffering or suspected to be suffering from, or in contact with, any disease of an infectious nature. Close co-operation is maintained with the District Medical Officers of Health.

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply.

There appears to be much misconception as to the danger derived from the consumption of raw milk. While it is admitted that milk is an ideal food for young children and old people, in as much as it is easily digested and leaves little in waste products, yet it must be clearly understood that certain diseases definitely have been proved to follow its use. Laying aside accidental or human sources of contamination, there is no doubt that at least 2000 children in this country die each year as a result of consuming milk containing living bovine tubercle bacilli. Added to this, there are no less than 4000 children affected annually, and, in many cases, crippled with tuberculosis of glands, bones and joints from a similar cause. In Norfolk alone at least £4000 is spent each year on treatment of such cases and much of the suffering and crippling, to say nothing of the waste of public money, *could be prevented.*

At the present time there are two grades of Tuberculin Tested milk licensed by the Minister of Health, but in Norfolk, of some 3000 producers, only 8 are in this category. All milk should be free from pathogenic organisms so it may be drunk with impunity in its raw state by our children; increase in height, weight and general well-being would more than reward us for the trouble taken to secure this end. Obviously, milk

intended for consumption in the raw state should be from cows free from bovine tubercle; this, of course, will take many years to accomplish. The County Council has recently commenced a scheme whereby all cows in milk will be subject to veterinary inspection twice a year. In time this, supplemented by bacteriological and, where necessary, biological investigation, will help towards attaining the desired end. The position would be simplified considerably if there were only two classes of milk sold, viz:—

- (a) **Tested**, *i.e.*, conforming with the present Certified milk.
- (b) **Non-tested**. This milk only to be used for human consumption after efficient pasteurisation or thorough sterilising.

The carrying out of schemes to ensure this should be in the hands of the County and County Borough Councils in whose areas the farms are situated; further, farmers should be encouraged to produce tested milk by being charged only a nominal fee for the licence and having tuberculin testing done free.

Tuberculosis is a great scourge, but there must also be taken into consideration undulant fever, which may be caused through drinking milk contaminated by *Brucella Abortus*. Fortunately, there have only been two cases notified to me in this County during the past six years. Pasteurisation or sterilisation would free milk from this organism, or, alternatively, the cows could be tested and reactors treated in a similar way to those found to respond to the tuberculin test. These views were recently expressed by me at a Congress of the Royal Institute of Public Health at Norwich, and the Economic Advisory Committee on Cattle Diseases has since reported on similar lines.

During the year 90 samples of milk were examined at the County Laboratory for cleanliness. Of these, 48 were passed as good; 4 as moderate; whilst 38 were unsatisfactory. Reports in the latter cases were forwarded to the Local Sanitary Authority with a view to investigation into the sanitary condition of the cowsheds, and also the methods adopted by the milkers, etc. 9 notifications were received from 3 Authorities that milk produced in the Administrative County of Norfolk had been found to contain tubercle bacilli. A few investigations were also made amongst other milk producers. Altogether 105 specimens were taken for examination for tubercle bacilli; of these, 2 were reported positive after microscopical examination, and 2 after biological examination. 4 cows on 4 farms were reported to the Diseases of Animals Committee for action under the Tuberculosis Order, 1925.

Research is being carried out in the County Laboratory in the cultivation of tubercle bacilli from milk on various media with success. The bovine bacillus has been grown in 12 days and the human in about 8.

Adulteration, etc.

The two Inspectors of Weights and Measures act as part-time sampling officers, examinations being undertaken by the County Analyst.

During the year 668 formal samples were submitted. Details of these, together with the action taken by the Council, are given in the following table:—

Article.	No. of Samples taken.	No. found Genuine.	No. Adulter- ated.	Action taken.	
				Prosecu- tion Ordered.	Cautioned.
Milk	509	463	46	9	9
Butter	61	58	3	2	1
Whisky	11	11	—	—	—
Brandy	2	2	—	—	—
Rum	4	4	—	—	—
Gin	1	1	—	—	—
Ginger Wine	4	4	—	—	—
Peppermint Cordial	1	1	—	—	—
Non-alcoholic Wines	9	9	—	—	—
Beef Broth	1	1	—	—	—
Quinine Wine	1	1	—	—	—
Jam	5	5	—	—	—
Marmalade	1	1	—	—	—
Calves' Tongues	1	1	—	—	—
Indian Bark	1	1	—	—	—
Beef Dripping	1	1	—	—	—
Mincemeat	1	1	—	—	—
Milk, tinned	2	2	—	—	—
Cream, tinned	2	2	—	—	—
Cream	4	4	—	—	—
Pork Pie	1	1	—	—	—
Lemon Curd	4	4	—	—	—
Lemon Cheese	3	3	—	—	—
Olive Oil	3	3	—	—	—
Cod Liver Oil	1	1	—	—	—
Lard	4	4	—	—	—
Jelly	1	1	—	—	—
Luncheon Sausage	1	1	—	—	—
Sausage	4	4	—	—	—
Meat Paste	5	5	—	—	—
Shredded Suet	3	3	—	—	—
Suet	1	1	—	—	—
Custard Powder	1	1	—	—	—
Pepper	3	3	—	—	—
Vinegar	2	2	—	—	—
Self-raising Flour	1	1	—	—	—
Baking Powder	3	3	—	—	—
Cake	2	2	—	—	—
Glycerine, Lemon and Ipecac.	3	3	—	—	—
Balsam of Aniseed	1	1	—	—	—
	<hr/> 669 <hr/>	<hr/> 620 <hr/>	<hr/> 49 <hr/>	<hr/> 11 <hr/>	<hr/> 10 <hr/>

HOUSING.

Under the Housing Act, 1930, it is the duty of the County Council to have constant regard to the housing conditions in rural areas. Following the issue of Circular 1331 by the Ministry of Health, the County Council requested the District Councils to inform them of the steps they proposed to take in connection with "slum" clearance. Where, from the knowledge gained in my survey of the districts between 1928 and 1930, the proposals did not seem adequate, further enquiries have been, or are being, made.

Early in 1934 the County Council appointed a Sanitary Assistant, who holds the Certificate of the Royal Sanitary Institute, to assist in this work. Up to the present two Rural Districts and one Urban District have been surveyed, and recommendations made to the District Councils for, in some cases, very considerable additions to the list of clearance areas and individual houses for demolition. Ultimately it is intended to survey the housing accommodation in every district in the county.

At the request of District Councils, the County Medical Officer and Sanitary Assistant have given expert evidence in connection with the appeal of owners against demolition orders both at Ministry of Health enquiries and at County Courts.

The 1930 Act might well be likened to Aladdin's Lamp, or "new houses for old" Act. It certainly has many good points, no subsidy being given unless a house is demolished or a part of a building is closed. This, when carried out to the proper extent, prevents the poor people with large families gravitating to the worst houses. Unfortunately, however, it does not—

- (a) provide houses for new families;
- (b) altogether alleviate overcrowding;
- (c) provide for re-housing families displaced from houses closed on an undertaking by the owner.

There are many houses in Norfolk of the one room up and one room down type, quite suitable for old couples yet hopeless for families. No new houses can be provided unless these are demolished. Of course, there is always the Housing (Rural Workers) Act, whereby much can be done to improve existing houses, *e.g.*, enlargement, raising of roofs, etc. Again, under this Act many houses which are now not in all respects fit for human habitation can be rendered so, the owner receiving, after complying with the necessary requirements, a grant which may under certain conditions amount to not more than two-thirds of the total cost. This Act has not been utilised to the best possible extent throughout the County. Unfortunately, the County Council delegated these duties to the various Rural District Councils, certain of which have done a considerable amount of work, but others have not applied the Act in a single case.

When the Ministry of Health makes an Order confirming the revision of the county areas the County Council should consider whether the Act would not be better administered direct as originally provided. By this means uniformity of action would be possible throughout the County as a whole, and the question of re-conditioning many houses fully considered.

The following table shows the action taken up to the 31st December, 1933, under the Housing (Rural Workers) Act by the 20 Rural District Councils since it came into operation:—

Rural District Councils.			Total number of houses for which applications have been received.	Total number of houses approved for grants.	Is maximum grant usually given.?	Total amount expended or authorised on grants. £
Aylsham	...	...	1	1	Yes	55
Blofield	...	...	17	10	No	145
Depwade	...	...	10	Nil	—	—
Docking	...	...	44	39	Yes	2352
Downham	...	...	54	48	No	2247
Erpingham	...	...	49	38	Yes	2917
St. Faith's	...	...	4	2	Yes	200
Flegg, East and West	...	...	3	Nil	—	—
Forehoe	...	...	10	4	Yes	50*
Henstead	...	...	33	12	Yes	539
Loddon and Clavering	...	...	42	41	Yes	3493
Lynn, Freebridge	...	...	10	10	Yes	399
King's Lynn	...	...	Nil	Nil	—	—
Marshland	...	...	23	12	Yes	1050
Mitford and Launditch	...	...	26	16	No	500
Smallburgh	...	...	90	72	No	5608
Swaffham	...	...	Nil	Nil	—	—
Thetford	...	...	4	4	No	150
Walsingham	...	...	13	10	Yes	364
Wayland	...	...	11	6	Yes	310

*Only 1 applicant accepted the Council's offer.

Under Section 34 of the Housing Act, 1930, 527 applications have been received and approved from 15 Rural District Councils for the erection of houses for Agricultural Workers.

Another matter on which uniformity would be advantageous is the procedure followed by District Councils when a group of two or more unfit houses, which are incapable of being rendered fit at reasonable cost, are scheduled for demolition. There are two methods of dealing with the case:—

- (1) by individual demolition;
- (2) by making a clearance area.

The ultimate result is the same, families are re-housed and the old houses pulled down; but in the event of an appeal by the owner under (1) the case is considered at the County Court, whilst an appeal under (2) a public enquiry is held by one of the Housing Inspectors of the Ministry of Health. From practical experience of both methods I cannot urge too emphatically District Councils to adopt the latter course wherever possible.

BLIND PERSONS ACT, 1920.

There were 591 registered blind persons in the County on 31st December, 1933, compared with 567 in 1932, and 536 in 1931. This increase in numbers does not indicate an extension in the incidence of blindness, as most of the new cases were over 50 years of age when registered. During 1932 and 1931 no case of blindness was discovered during routine medical inspection of school children.

During the year 86 cases were reported for consideration, 68 of whom were certified to be blind within the meaning of the Act; the remaining 18 being entered on the Prevention Register.

Distribution of the Registered Cases in Age Groups.

	0-5	5-16.	16-21.	21-30.	30-40.	40-50.	50-60.	60-70.	70-.	Un-known.	Total.
Male	1	9	4	15	24	30	50	73	96	6	308
Female	2	7	3	11	19	19	43	73	105	1	283
Totals	3	16	7	26	43	49	93	146	201	7	591

Ages at which Blindness occurred.

	0-1.	1-5.	5-10.	10-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-.	Un-known.
Male	40	3	7	16	18	30	31	42	57	23	41
Female	28	3	8	14	15	14	15	50	40	45	51
Totals	68	6	15	30	33	44	46	92	97	68	92

The Prevention Register now contains 149 cases and the supplementary 54, compared with 138 and 63 respectively a year ago.

Training.

Registered cases over 16 years of age, approved for a course of training, continue to be sent to the Norwich Institution for the Blind, the Education Committee accepting financial responsibility. During the year, 4 such cases were approved and are reported to be making progress in mat and brush making, basket work, machine and hand knitting. There are at present 12 cases undergoing training.

Thirteen children are being educated at the East Anglian School for the Blind, Gorleston, under the Education Committee's Scheme. On reaching the age of 16 years, if found suitable and willing, they are transferred to the Norwich Institution for a period of continued training, which usually lasts about 4 years.

Home Workers.

There are now 10 registered Home Workers in the County. Two cases were transferred during the year to the list of unemployables as their earnings were negligible. A piano tuner continued to hold a contract under the Norfolk Education Committee for the tuning of school pianos in his area.

Employment.

Apart from the 10 Home Workers, 49 blind persons are employed, 13 being in the workshops of the Norwich Institution. There were no trained persons unemployed. The unemployable blind number 501.

Home Teaching and Visiting.

Both Home Teachers hold the certificate of the College of Teachers of the Blind.

4506 visits were made during the year, in comparison with 4415 last year.

21 cases received instruction in Braille or Moon reading and various pastime occupations.

Welfare.

Five invalid chairs have been loaned to blind persons.

Dental treatment has been provided for 6 blind persons and a surgical appliance to another.

There are 48 members of the National Library using Braille and Moon books. "Progress," the "Hampstead" Magazine and the Moon Magazine and Moon newspaper are circulated to readers.

The Committee of the Norwich Institution for the Blind again allotted £10 to be distributed in Christmas gifts, and 78 of the poorer cases in the County benefitted by this much appreciated donation.

Employable Blind.

The number of registered blind persons employed is 59, 13 as workshop employees at Institutions, 10 as Home Workers, and 36 in various occupations not supervised by the Local Authority.

Wireless.

There are now 160 registered blind persons using wireless sets supplied by the "Wireless for the Blind" Fund.

Maintenance Allowances.

205 registered blind persons are in receipt of maintenance allowances. The scale adopted is designed to provide during the winter months a single person living with relatives with an income of 16/- per week; a single person living alone with 19/-. and a married couple living together with 26/-. These rates are reduced by 2/- a week from 1st April to 30th September.

Pre-School Age.

All notified cases of Ophthalmia Neonatorum were followed up under the Maternity and Child Welfare Scheme. In no case was vision impaired (see page 13).

School Children.

Treatment of school children continues to be carried out under the Education Committee's Scheme, and in cases where this is not applicable they are dealt with under the Public Health Act, 1925.

PREVALENCE OF AND CONTROL OVER INFECTIOUS AND OTHER DISEASES.

In 1929 a report was submitted to the County Council under Section III. of the Local Government Act, 1929, as a result of which it was decided to provide a Central Isolation Hospital at East Dereham for those parts of the County which have no suitable institution for the treatment of infectious disease other than smallpox. The necessity for national economy prevented further action being taken, but the County Council has now given general approval to the scheme. In a few instances, the Local Sanitary Authority arranges for patients to be admitted to the Norwich Isolation Hospital, but considerable difficulty is often experienced in arranging for the removal of the patient to the Hospital. Frequently an ordinary car has to be used and arrangements made for its disinfection. There is no ambulance available in the County for the removal of cases with infectious disease other than in the few districts possessing their own Hospital.

The following table gives particulars of notifications of infectious disease and the number of deaths from certain of the diseases during 1933 :—

Disease.	No. of cases notified.	Deaths as given by Registrar-General.
Scarlet Fever	447	1
Diphtheria	155	18
Enteric Fever	13	1
Pneumonia	261	171
Puerperal Fever	11	3
Puerperal Pyrexia	42	10
Polio-myelitis	5	—
Encephalitis Lethargica	2	6
Ophthalmia Neonatorum	26	Not given
Erysipelas	63	Not given
Tuberculosis (Pulmonary)	271	141
Tuberculosis (Non-Pulmonary)	199	41
Chicken-pox	188	Not given
Pneumococcal Meningitis	1	Not given
Meningo-coccal Meningitis	1	Not given
Measles	26	1
Cerebro-Spinal Fever	4	3
Polio-Encephalitis	1	Not given
Dysentery	1	Not given
Total	1717	396

No case of smallpox was reported. No action has been taken by the County Council to provide artificial immunisation.

The action taken in connection with the prevention of blindness is referred to on page 20.

VENEREAL DISEASES.

Under the Public Health (V.D.) Regulations of 1916, treatment centres have been established at the Norfolk and Norwich Hospital and the West Norfolk and Lynn Hospital. Sessions are held at Norwich twice weekly

for both sexes, and at King's Lynn twice weekly for males and once weekly for females. Intermediate treatment is carried out daily at both Clinics.

194 new patients from the administrative county were diagnosed during the year 1933, as follows:—

Clinic.		Syphilis.		Gonorrhœa.		Not V.D.		Total.
Norwich	...	33	...	59	...	1	...	93
King's Lynn	...	24	...	54	...	23	...	101
		<hr/>		<hr/>		<hr/>		<hr/>
Total	...	57	...	113	...	24	...	194
		<hr/>		<hr/>		<hr/>		<hr/>

This is an increase of 15 cases compared with the number of new cases during 1932.

The following table shows the total attendances made by Norfolk patients at each clinic during the past five years:—

Year.		Norwich.		King's Lynn.
1933	...	2341	...	3768
1932	...	2436	...	3638
1931	...	2326	...	1636
1930	...	2066	...	1086
1929	...	2229	...	909

In-patient Treatment.

		Norwich.		K. Lynn.
(a)	Total number of persons admitted during year	2	...	2
(b)	Aggregate number of "in-patient days"	25	...	33

Pathological examinations were made as follows during 1933:—

For Wasserman Reaction	...	...	...	318
,, Spirochetes	...	...	...	7
,, Gonococci	...	...	...	448
,, Other organisms	...	...	...	9
				<hr/>
	Total	...	...	782
				<hr/>

TUBERCULOSIS.

Incidence and Mortality, 1933.

The number of new cases of pulmonary tuberculosis reported, during life, in the year was 146 males and 125 females, a total of 271. This is the lowest number recorded since 1923. In 1932, 346 new cases were notified, whilst the average for the ten years 1923-1932 was 321. In addition, there were 9 posthumous notifications, 5 being transferable deaths notified by the Registrar-General.

There has been also a slight reduction in the number of Non-Pulmonary cases notified, *i.e.*, 199 compared with 222 in 1932. The average for the ten years 1923-32 was 154. In addition, 7 transferable deaths were notified by the Registrar-General.

On the 31st December the Notification Register contained the names of 2981 patients, as follows:—

Pulmonary.			Non-Pulmonary.			Total Cases.
Males.	Females.	Total.	Males.	Females.	Total.	
953	798	1751	646	584	1230	2981

304 cases were removed from the Register during the year, 25 for withdrawal of notification, 147 for recovery from the disease, and 132 on account of death.

The following table shows the deaths from pulmonary tuberculosis during the past eleven years, analysed according to sex and age:—

Period.			Age Groups.						
			0 to 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and over.
MALES.									
1923-1927	—	1	2	19	49	29	5
Average.									
1928-1932	—	—	2	14	39	26	7
Average.									
1933	—	1	1	12	29	18	5
FEMALES.									
1923-1927	—	—	5	24	41	21	6
Average.									
1928-1932	—	—	2	23	40	17	7
Average.									
1933	—	—	3	13	41	14	4

The figures for 1933 show a decline in both sexes, particularly males.

In accordance with the suggestion in the Ministry's Circular 1346, copies of Forms T 137 and 145 are not included in this report. The former, dealing with notifications, has already been reviewed, and the following are salient features from the other Form.

863 new cases, including 230 contacts, were examined at the two dispensaries in 1933 and 313 were definitely diagnosed as tuberculous. The corresponding figures for 1932 were 882 and 418 respectively.

2263 patients (including 239 doubtful cases) were on the Dispensary Registers on December 31st, compared with 2322 the year previous. 430 were T.B. plus. 956 cases were written off, 184 as recovered, 544 as non-tuberculous, 138 as dead, and 90 removed from the County.

356 specimens of sputum, etc., were examined in connection with dispensary cases and 171 X-ray examinations were made.

Form T 145a. is given in full on pages 40 and 41 (Table 2), as it enables the County Council to see the effect of the Tuberculosis Scheme over a period of years. From this table it will be seen that during the six years 1926 to 1931, 1770 new pulmonary cases were added to the Dispensary Register. 899 of these were classified as T.B. —, tubercle bacilli not being present in the sputum. The remaining cases all had positive sputum, and were classified as follows:—T.B. + Group I. (limited disease), 160 cases; T.B. + Group II. (advanced disease), 405 cases; T.B. + Group III. (very advanced disease), 306 cases.

The condition at the end of 1933 of the 308 cases registered in 1926, *i.e.*, after eight years' treatment and supervision, was:—

	Tb. minus.	Gp. I.	Tb. plus. Gp. II.	Gp. III.	Total.
Disease arrested or discharged as recovered	64	7	2	1	74
Disease not arrested ...	11	1	6	3	21
Condition not ascertained during year ...	14	—	1	—	15
Lost sight of, or otherwise removed from register	27	7	9	5	48
Dead ...	30	18	43	59	150
Totals ...	146	33	61	68	308

Residential Treatment.

There has been no alteration in the Council's arrangements for the provision of beds during the year.

32 patients were admitted to the Stanninghall Colony and 37 discharged. The condition of those discharged was:—

Disease arrested	...	...	...	...	5
Disease quiescent	...	...	...	...	16
Much improved	...	...	...	...	4
Improved ...	...	...	...	...	4
Unsuitable for further treatment at the Colony	...	...	...	...	2
Disease still active	...	...	...	...	6
Total	...	...	...	...	37

Altogether 499 patients received residential treatment in other than Public Assistance Institutions. 348 were discharged and 4 died during the year. There were 147 still in the institutions on 31st December. In addition, 50 persons were admitted to Public Assistance Institutions, of whom 16 were discharged, whilst 19 died.

Dispensary and other Treatment.

The Council's 158 shelters have again proved valuable accessories to treatment, particularly where patient's home conditions are bad. The difficulty is to induce the patients to sleep in the shelters during the winter months.

20 patients completed courses of Ultra-Violet Light treatment during the year either at the Norfolk and Norwich Hospital or by arrangement with certain medical practitioners in the County who have installed the necessary apparatus. The results on the whole have been satisfactory, as shown by the following statement:—

Form of Tuberculosis.	No. of Cases.	Periods of Treatment.	Results.			
			Quies-cent.	Much Im-proved.	Im-proved.	No Improve-ment.
Glandular	5	{ 2—6 months	—	—	2	2
		{ 8 ,,	—	—	1	—
Bones and Joints ...	1	11 ,,	—	—	—	1
Abscesses	1	4 ,,	—	—	1	—
Lupus	12	{ 3—6 ,,	2	1	—	1
		{ 7—24 ,,	1	5	2	—
Abdominal	1	3 ,,	—	—	1	—
Totals ...	20		3	6	7	4

Dental extractions were authorised in 18 cases, and dentures in 4 cases, whilst a weekly average of 160 patients received extra nourishment in the form of milk, maltoline, or cod liver oil.

Surgical appliances were provided as follows, in addition to the cases (under 16 years of age) included in the Orthopædic Scheme report:—

Surgical Boots	...	...	...	4
Spinal Supports	...	...	...	11
Plaster Beds	...	...	...	3
Total	...	...	...	18

The Public Health (Prevention of Tuberculosis) Regulations, 1925.

It has not been necessary to take any action during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or Section 62 of the Public Health Act, 1925.

TABLE 1. Analysis of Cases on Tuberculosis Dispensary Register, 31st December, 1933.

In Institutions (including Public Assistance Institutions).	ACTIVE.		QUIESCENT.		ARRESTED.		TOTALS.	
	M.	F.	M.	F.	M.	F.	M.	F.
Observation	...	—	—	—	—	—	—	2
T.B. —	...	8	12	3	2	—	21	13
T.B. + { 1 2 3	...	7	—	1	—	—	7	2
	...	26	—	—	—	—	28	14
	...	13	1	—	—	—	13	1
Bones and Joints	...	5	18	—	—	1	7	19
Abdominal	...	—	3	—	1	—	1	3
Glands	...	—	8	—	—	—	—	8
Genito-Urinary	...	—	—	—	—	—	—	—
Lupus	...	—	—	—	—	—	1	—
Abscesses	...	—	—	—	—	—	—	—
Totals	59	33	42	4	3	1	78	40
Home Treatment.								
Observation	...	—	—	—	—	—	36	163
T.B. —	...	50	50	127	84	97	226	274
T.B. + { 1 2 3	...	19	—	12	17	9	62	43
	...	87	2	18	19	7	136	73
	...	29	13	1	1	2	31	16
Bones and Joints	...	23	12	12	25	16	68	43
Abdominal	...	2	15	7	6	3	17	15
Glands	...	2	175	25	10	13	34	53
Genito-Urinary	...	2	—	3	3	1	16	11
Lupus (Skin)	...	6	2	3	—	1	8	20
Abscesses	...	2	4	—	1	1	4	1
Eyes	...	1	—	1	—	1	1	2
Totals	223	191	261	209	166	151	639	587
Grand Totals	282	224	303	213	169	152	717	627
								919

Table 2.

(a) PULMONARY TUBERCULOSIS.

Return showing in summary form (a) the condition at the end of 1933 of all new cases from 1926 onwards still remaining on the Dispensary Register; and (b) the reasons for the removal of all cases written off the Register during that period. The Table is arranged according to the years in which the patients were first entered on the Dispensary Register as definite cases of pulmonary tuberculosis, and their classification at that time.

Condition at the time of the last record made during the year to which the return relates.	1926					1927					1928					1929					
	Class T.B. minus	Class T.B. plus			Class T.B. minus	Class T.B. minus	Class T.B. plus			Class T.B. minus	Class T.B. minus	Class T.B. plus			Class T.B. minus	Class T.B. minus	Class T.B. plus				
		Group 1	Group 2	Group 3			Total (Class T.B. plus)	Group 1	Group 2			Group 3	Total (Class T.B. plus)	Group 1			Group 2	Group 3	Total (Class T.B. plus)		
Disease Arrested	M.	1	2	1	3	8	2	4	—	6	11	5	—	1	6	13	3	2	—	5	
	F.	6	1	1	3	5	—	—	—	—	6	3	2	—	5	7	1	—	—	1	
	Children	7	—	—	—	12	—	—	—	—	20	—	—	—	—	10	—	—	—	—	
	M.	2	—	2	6	10	3	6	2	11	6	5	7	—	12	15	6	12	3	21	
	F.	4	1	1	4	12	—	4	—	4	15	2	3	1	6	20	5	8	3	16	
Disease not Arrested	Children	5	—	—	—	12	—	—	—	—	19	—	—	—	1	33	—	—	—	—	
	M.	14	—	1	1	9	—	2	—	2	25	—	1	—	1	10	1	2	—	3	
	F.	39	4	9	17	68	5	16	2	23	102	15	14	2	31	108	16	24	6	46	
Total on Dispensary Register at 31st December, 1933	M.	8	3	—	3	10	—	—	—	—	4	—	—	—	—	—	—	—	—	—	
	F.	24	1	—	1	20	—	1	—	1	9	1	—	—	1	—	—	—	—	—	
	Children	18	—	—	—	26	—	—	—	—	6	—	—	—	—	—	—	—	—	—	
Discharged as Recovered	M.	27	7	9	21	41	5	8	4	17	33	3	9	6	18	21	6	5	1	12	
	F.	10	10	21	30	8	4	21	23	48	11	3	16	22	41	13	8	13	15	36	
	Children	18	7	21	27	9	3	19	29	51	6	5	31	20	56	12	1	25	19	45	
Lost sight of, or otherwise removed from Dispensary Register	M.	2	1	1	2	—	1	—	—	1	2	—	—	1	2	4	—	—	—	—	
	F.	107	29	52	64	114	13	49	56	118	71	12	57	49	118	50	31	67	41	139	
	Children	146	33	61	68	182	18	65	58	141	173	27	71	51	149	158	31	67	41	139	
Total written off Dispensary Register																					
(a) Remaining on 31st December, 1933.																					
(b) Not now on Dispensary Register and reasons for removal therefrom.																					

(a) Remaining on Dispensary Register on 31st December, 1933.

Disease Arrested	1930			1931			1932			1933		
	Adults		M.	Adults		M.	Adults		M.	Adults		M.
	Children		F.	Children		F.	Children		F.	Children		F.
	13	3	2	—	5	3	—	1	—	1	—	—
Disease not Arrested	7	1	—	—	1	—	—	—	—	—	—	—
	10	—	—	—	—	6	—	—	—	—	—	—
	15	6	12	3	21	18	11	16	3	30	4	41
Condition not ascertained during the year	20	5	8	3	16	26	7	9	3	19	2	27
	33	—	—	—	—	30	—	—	—	—	—	—
	10	1	2	—	3	6	—	1	1	2	—	1
Total on Dispensary Register at 31st December, 1933	108	16	24	6	46	91	18	27	8	53	16	70
											48	6
											119	72

(b) Not now on Dispensary Register and reasons for removal therefrom.

Discharged as Recovered	1930			1931			1932			1933		
	Adults		M.	Adults		M.	Adults		M.	Adults		M.
	Children		F.	Children		F.	Children		F.	Children		F.
	—	—	—	—	—	—	—	—	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Register	21	6	5	1	12	11	1	11	3	15	2	11
	13	8	13	15	36	7	2	15	11	28	—	21
											3	8
Dead	12	1	25	19	45	9	2	16	13	31	11	25
	4	—	—	—	—	1	—	1	—	1	2	1
											—	14
Total written off Dispensary Register	50	15	43	35	93	28	5	43	27	75	4	59
											30	25
											27	97

GRAND TOTALS	158	31	67	41	139	119	23	70	35	128	146	20	78	31	129	98	17	50	30	97
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(b) NON-PULMONARY TUBERCULOSIS.

Return showing in summary form (a) the condition at the end of 1933 of all new cases from 1926 onwards still remaining on the Dispensary Register; and (b) the reasons for the removal of all cases written off the Register during that period.

Condition at the time of the last record made during the year to which the return relates.	1926					1927					1928					1929									
	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total					
Disease Arrested	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Disease not Arrested	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Condition not ascertained during the year	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Total on Dispensary Register at 31st December, 1933	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Transferred to Pulmonary	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Discharged as Recovered	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Lost sight of, or otherwise removed from Dispensary Register	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Dead	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Total written off Dispensary Register	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			
Grand Totals of (a) and (b) (excluding those transferred to Pulmonary)	M.	Adults				M.	Adults				M.	Adults				M.	Adults				M.	Adults			
	F.	Children				F.	Children				F.	Children				F.	Children				F.	Children			

Disease Arrested	Adults		M.	1	—	—	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
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